

# APPLICATION UNDER UNITED STATES PATENT LAWS

Atty. Dkt. No. 008312-0306985

Invention: INFORMATION PROCESSING SYSTEM, SERVER AND WEB ADDRESS ISSUING METHOD

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**Address communications to the  
correspondence address  
associated with our Customer No**

**00909**

Pillsbury Winthrop LLP

This is a:

- ☐ Provisional Application
- ☒ Regular Utility Application
- ☐ Continuing Application
  - ☐ The contents of the parent are incorporated by reference
- ☐ PCT National Phase Application
- ☐ Design Application
- ☐ Reissue Application
- ☐ Plant Application
- ☐ Substitute Specification
  - Sub. Spec Filed \_\_\_\_\_
  - in App. No. \_\_\_\_\_ / \_\_\_\_\_
- ☐ Marked up Specification re
  - Sub. Spec. filed \_\_\_\_\_
  - In App. No \_\_\_\_\_ / \_\_\_\_\_

## SPECIFICATION

TITLE OF THE INVENTION  
INFORMATION PROCESSING SYSTEM, SERVER AND WEB ADDRESS  
ISSUING METHOD

CROSS-REFERENCE TO RELATED APPLICATIONS

5           This application is based upon and claims the  
benefit of priority from the prior Japanese Patent  
Application No. 2002-345860, filed November 28, 2002,  
the entire contents of which are incorporated herein by  
reference.

10                           BACKGROUND OF THE INVENTION

1. Field of the Invention

          The present invention relates to an information  
processing system having a server and a client, which  
perform wireless information exchange, and also to  
15       a server applicable to the system and a Web address  
issuing method applicable to the system.

2. Description of the Related Art

          In a prior-art information processing system  
having a server and a client, which perform information  
20       exchange by radio, when Web address information is  
provided to the client from the server, the server  
always provides the same Web address information in  
response to a request from the client (Jpn. Pat. Appln.  
KOKAI Publication No. 2002-116968).

25           Thus, in the prior-art, there is a problem that  
Web address information to be wanted by users cannot be  
provided.

# BRIEF SUMMARY OF THE INVENTION

According to one embodiment the present invention, when an URL address is beacon-transmitted from a server to a client, the URL address that is beacon-transmitted is dynamically changed in accordance with the content of user information received from the client. Thereby, it is possible to provide a pointer for most suitable Web page information for each user who uses the client.

One embodiment of the present invention may provide an information processing system in which information exchange is performed between a server and a client, wherein the client includes means for transmitting user information to the server, and the server includes means for determining, based on the user information, Web address information to be provided to the client.

With the function of the present invention, Web address information to be wanted by users can be provided to each of a plurality of users who use a client. In addition, a URL of a most suitable Web page can be provided to each user. For example, a URL to be accessed may be changed between general non-specified users and specified users (e.g. shareholders, members of a shop, affiliate company members, or customers), or a different URL may be presented depending on the number of times of beacon reception by the user.

#### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate presently preferred embodiments of the invention, and together with the general description given above and the detailed description of the preferred embodiments given below, serve to explain the principles of the invention.

FIG. 1 is a block diagram showing the structure of an information processing system according to an embodiment of the present invention;

FIG. 2 is a flow chart illustrating a processing procedure in the embodiment; and

FIG. 3 illustrates a communication procedure in the embodiment.

#### DETAILED DESCRIPTION OF THE INVENTION

An embodiment of the present invention will now be described with reference to the accompanying drawings.

FIG. 1 is a block diagram showing the structure of an information processing system according to an embodiment of the present invention.

The information processing system shown in FIG. 1 is configured to include a beacon server 10 that transmits a URL beacon, a client system 13 that receives the URL beacon transmitted from the beacon server 10, and a content server 16 that stores Web page information.

The beacon server 10 includes a radio communication section 11 and a user database 12. The client system 13 includes a radio communication section 14 and a Web browser 15. The content server 16 stores Web page information 17 of a plurality of Web pages.

The beacon server 10 and client system 13 constitute a local area network (wireless LAN) using their own radio communication sections (11, 14). Data transmission/reception is thus performed between the beacon server 10 and client system 13.

The client system 13 connects to the Internet 18 using the Web browser 15. In this case, physical links and communication protocols used in the radio communication sections (11, 14) of the beacon server 10 and client system 13 are not limited and are freely chosen in the present invention. For example, a low-power wireless communication standard such as Bluetooth or an infrared communication standard such as IrDA may be used. Similarly, a physical link used by the Web browser 15 to access the Internet 18 is not limited and may be freely chosen in the present invention. For example, dial-up connection using a public switched telecommunication network or Internet access via a wireless LAN may be used.

FIG. 2 is a flow chart illustrating a processing procedure in the embodiment, and FIG. 3 illustrates

a communication procedure in the embodiment.

The operation of the embodiment of the invention will now be described with reference to the drawings.

The user database 12 provided in the beacon server  
5 10 stores user information and Web address information  
with respect to a plurality of users who use the client  
system 13. In the user information, the users are  
classified into classes. The Web address information  
is provided for the respective classes. The user  
10 information and the Web address information are  
associated with respect to each class of users. The  
user information may be any one of the following:  
information on the users' ages, sexes, etc.;  
information on classified ages, sexes, etc. of users;  
15 unique ID information possessed by the radio  
communication section 14 of client system 13;  
user-specific information such as membership numbers  
assigned to users; information on users classified for  
specific purposes; information on classified users; and  
20 information on users' electronic business cards  
(V-cards). In this embodiment, as shown in FIG. 1, in  
the user database 12, user IDs for identifying users  
who use the client system 13 are associated with URLs  
of Web pages to be accessed.

25 The radio communication section 14 of the client  
system 13 establishes connection to the radio  
communication section 11 of the beacon server 10 in

a communicable area of the beacon server 10. Thus, the client system 13 connects to the beacon server 10 (step 201 in FIG. 2).

5       Once the connection to the beacon server 10 is established, the client system 13 transmits the aforementioned user information to the beacon server 10 (step 202 in FIG. 2).

10       Upon receiving the user information from the client system 13, the beacon server 10 refers to the user database 12, acquires Web address information which is associated with the user information and is indicative of a most suitable Web page for the user, and transmits a URL beacon of the Web address information to the client system 13 (steps 203 and 204  
15       in FIG. 2).

      Upon receiving the URL beacon from the beacon server 10, the client system 13 delivers it to the Web browser 15. The Web browser 15 accesses the Web page information 17 in the content server 16 via the  
20       Internet 18 (step 205 in FIG. 2).

      As has been described above, based on the user information received from the client system 13, the beacon server 10 refers to the user database 12 and acquires the Web address information. Then, the beacon  
25       server 10 transmits the URL beacon of the Web address information to the client, and presents the URL for accessing the Web page. Thereby, the user can always

access the most suitable Web page.

Additional advantages and modifications will readily occur to those skilled in the art. Therefore, the invention in its broader aspects is not limited to  
5 the specific details and representative embodiments shown and described herein. Accordingly, various modifications may be made without departing from the spirit or scope of the general inventive concept as defined by the appended claims and their equivalents.